April 27, 1998

Ms. Magalie Roman Salas
Office of the Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

Re: CC Docket Nos. 96-45 and 97-160
DA 98-715

Dear Ms. Salas:

Enclosed is the latest draft of the Ad Hoc Working Group proposal for determining and distributing high cost support for both rural and non-rural carriers. By resolution adopted by the NARUC Executive Committee on November 11, 1997, NARUC authorized the Ad Hoc Working Group to bring its plan, supporting principles, and the underlying analysis to the attention of the FCC.

We expect other plans to be filed on April 27, 1998. In the event that parties filing plans are able to reach consenus which compares the plans on a common basis, we will file that analysis as it applies to the Ad Hoc plan.

Thank you for the opportunity to continue to participate in this highly important matter.

Tom Dunleavy /PBR
Thomas J. Dunleavy
Co-Chair
Ad Hoc Working Group

Thomas L. Welch /pbr
Thomas L. Welch
Co-Chair
Ad Hoc Working Group

HIGH COST SUPPORT:
AN ALTERNATIVE DISTRIBUTION PROPOSAL

Prepared by the NARUC Ad Hoc Working Group
on Funding for High Cost Areas

Submitted to the FCC on: April 27, 1998

EXECUTIVE SUMMARY

Representatives of low and high cost states, local exchange carriers large and small, and other industry participants have worked since the summer of 1997 to develop an approach to funding for high cost areas that satisfies both the Telecommunications Act of 1996 (Telecom Act) and their legitimate and diverse interests. The resulting proposal is a reasoned compromise that, if adopted, will satisfy the goal of the Telecom Act to ensure reasonably comparable rates for high cost areas of the country without creating an unduly large burden on cost in low cost areas. The key elements in the proposal are:

1) that funds should flow from state to state only to the extent that a state is unable, by balancing high and low cost areas within its boundaries, to achieve average cost levels consistent with the national average;

2) that current support levels for rural companies are maintained to avoid near-term disruption for rural companies; and

3) that the impact of anomalies in cost data is moderated by basing support on the lesser of embedded or forward-looking state average costs, with a provision to accommodate states that require rapid replacement of older infrastructure.

These elements, taken together, require a fund of modest size (under $2 billion nationwide using current cost estimates) and provide sufficient additional support that high cost states can satisfy their obligations under the Telecom Act.

Perhaps the most important benefit of the proposal, however, is that, because it is the product of extensive negotiation and give and take, its adoption will minimize the degree to which litigation will dominate the Universal Service Fund landscape. High cost states supporting the proposal would give up the opportunity to claim that, under the Telecom Act, far greater federal funding is required; low cost states, for their part, would give up the opportunity to claim in court that any obligation is too great.

Numerous principles guided the design of the plan. These principles are endorsed by all the submitting states as a package, although some states may differ with some of the individual principles.

- The principal purpose of federal high cost support is to maintain reasonably comparable intrastate rates, and not to reduce interstate access charges.

- Consumers in rural, insular and high cost areas should have access to a similar spectrum of telecommunications services as consumers in urban areas, at rates that are reasonably comparable to rates charged for similar services in urban areas elsewhere in the country.

- The federal high cost support program should be as small as possible.

- Revenues for the federal high cost support program should be derived from a charge on only the interstate revenues of interstate carriers.

- Collection and distribution of high cost support should be competitively neutral.

- Federal support should create appropriate incentives for investment in the network.

- Federal support for high cost areas should be compatible with the method of separating costs and revenues between interstate and intrastate jurisdictions.

- Federal support for high cost areas should be distributed in a manner determined by state commissions and that is compatible with the state's decisions on related issues of rate deaveraging and establishing the size of service areas.

- Carrier earnings should be based upon success attracting customers in a competitive market, not based upon exploiting irregularities of state and federal regulatory policy.

- Federal support should be based upon cost, and should be based upon the differences among the states in the ability to provide reasonably comparable rates with internally generated explicit subsidies. Federal support should permit each state to have rates equal to the overall national average, which is an acceptable definition of rates "reasonably comparable" to urban rates.

- Both forward looking cost and embedded cost should set upper limits on federal support. This will ensure that any errors generated by forward-looking cost models do not have unduly harsh consequences.

- Federal support should consist of a single system. No distinction should be made between rural and non-rural carriers, nor between loop and switch costs.

- Carriers should be assured that federal support will not decrease until the reliability of forward looking models has been securely established.

To satisfy these principles, the proposal would calculate and distribute high cost fund support using the following sequence:

1. Using forward-looking cost models, calculate the difference between each state's average cost and the national average. Remove the 25% of these costs already covered by interstate revenues under separations.

2. Using reported embedded costs of incumbent carriers, calculate the difference between each state's average (embedded) cost and the national average. Remove the 25% already covered by interstate revenues under separations.

3. For each state, take the lesser of the amounts from step 1 and step 2. This is the minimum amount of federal support for each state.

4. Calculate hold-harmless support for each state. For most states, this consists of support under existing support systems (i.e., support for loops and switches). For states with above average embedded costs that currently make a net contribution to federal support, the hold-harmless amount is increased to ensure that the state will not have to increase its net contribution.

5. Federal support under the proposal is the greater of this "hold-harmless" amount and the minimum amount from step 3.

6. State commissions would assign federal support first to carriers who would receive support under existing systems, and distribute remaining support (if any) according to plans adopted by the states and approved by the FCC to ensure consistency with the Telecom Act. States could distribute federal support in accordance with one of several options, each of which would ensure that rates in rural areas are reasonably comparable to rates in urban areas.

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I. Background

This document proposes an alternative to the plan for distributing federal high cost support to rural areas set forth in the order of May 8, 1997 from the Federal Communication Commission (FCC).[1] This proposal was originally prepared at the request of the Chairman of the Communications Committee of the National Association of Regulatory Commissioners (NARUC). The goal has been to find a method of distributing federal high cost support that could be supported by both high-cost and low-cost states.

At its annual meeting in November, 1997, the National Association of Regulatory Utility Commissioners (NARUC) passed two resolutions regarding high cost funding. The first and more general resolution expressed NARUC's concern that the FCC's interstate universal service fund plan would not sufficiently benefit local ratepayers. NARUC supports the use of the Federal portion of the Universal Service Support Fund exclusively to maintain affordable rates in high cost areas. The resolution encouraged NARUC membership, leadership, and staff to convey these concerns both formally and informally to the FCC, in pending access and universal service dockets, and to request further reconsideration of this portion of its universal service decision.

The second NARUC resolution specifically addressed an earlier draft of this paper. It endorsed six general principles that are contained, in revised form, below. It also urged the FCC to foster dialogue among the Section 254 Federal-State Joint Board, State regulators, the NARUC, the FCC, and their respective staffs and other interested parties toward the goal of resolving the high cost funding dilemma now facing regulators. Finally, it authorized the group that prepared this paper to bring the described plan, its supporting principles and the underlying analysis to the attention of the FCC, Congress, the Section 254 Federal-State Joint Board, and to other groups, individuals, or organizations through the working group or other means as appropriate.

After the NARUC annual meeting, work continued under the supervision of Chairman Thomas Welch of the Maine Public Utilities Commission and Commissioner Thomas Dunleavy of the New York Public Service Commission. Staff from several states, including Arkansas, Maine, Maryland, New York, Oregon, Vermont and Washington (Ad Hoc Group), have conducted numerous telephone conferences to develop the proposal described in this paper.

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1. *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order (rel. May 8, 1997) ("Universal Service Order").

The proposal described below was designed to allow the FCC to meet its statutory obligation to provide sufficient support for high cost areas, but to use no more than the amount of money that the FCC has indicated it would otherwise be willing to raise from the interstate revenues of interstate carriers.

II. Support For High Cost Areas

A. The Existing Support System

State utility commissions and the FCC have separate jurisdiction over telecommunications services. State commissions set rates for intrastate telecommunications services, including local exchange service. The FCC sets rates for interstate services, including interstate toll calls. Telephone company revenues and costs are thus now "separated" into state and interstate components.

The FCC currently provides two mechanisms to support local exchange companies. These federal programs have significant although indirect effects on those companies' intrastate rates, including local service rates.

The first federal program provides loop support to some local exchange carriers with high costs. This high cost support is intended to ensure that local telephone rates are priced within the means of the average subscriber in all areas of the country.[2] About one-half of the country's local exchange companies receive high cost support, and these companies serve about one-fifth of the nation's telephone customers. The amount of high cost support each carrier receives is based upon the difference between that carrier's "non-traffic sensitive" cost and the national average cost. These non-traffic sensitive costs consist largely of loop costs, although some switching costs are included. Only carriers with costs greater than 115% of the national average cost are eligible for this support. High cost support is reduced substantially for companies serving more than 200,000 lines, a feature that has been strongly criticized by some states. High cost support payments are not provided directly as cash payments to qualifying companies but are accomplished through the

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2. *Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board*, FCC 83-564, CC Docket No. 80-286, Decision and Order, ¶¶ 30, 33 (1983).

separations (Part 36) process.[3] The total amount of high cost loop support is estimated at $826 million in 1998.[4]

The second federal support mechanism allows local exchange carriers serving fewer than 50,000 lines to multiply the interstate ratio of their "dial equipment minutes of use" by a factor that depends upon the number of lines served by the carrier. This effectively transfers costs from the carriers' state to its interstate jurisdiction, thereby allowing a reduction in the intrastate rates set by state commissions. The total annual amount of this support, which is referred to as "DEM weighting," was $428 million in 1996.[5]

B. The Telecommunications Act of 1996

The Telecommunications Act of 1996 (Telecom Act) requires the FCC to enact "specific, predictable, and sufficient mechanisms" to protect universal service.[6] These mechanisms must ensure that consumers in all regions of the country, including those in rural, insular, and high cost areas, have access to telecommunications and information services that are "reasonably comparable" to those services provided in urban areas, at rates that are also reasonably comparable to rates charged in urban areas.[7]

Some high cost states have argued that this new language requires a substantial increase in federal support for high cost areas. The argument takes at least three forms:

1. The existing system discriminates in favor of rural customers who are served by small carriers and against rural customers who are served by large carriers.[8] The Telecom Act prohibits continuation of this discrimination.

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3. Under that process, companies receiving loop support have their intrastate costs reduced (and their interstate costs increased) by the amount of that support.

4. Industry Analysis Division, Common Carrier Bureau, FCC, *Universal Service Support and Telephone Revenue by State*, January, 1998, Table 2. This is based upon 1996 cost data, and includes Alaska and insular areas.

5. *Id.* at Table 6.

6. 47 U.S.C. § 254(d).

7. 47 U.S.C. § 254(b)(3).

8. The current system provides less support for carrier serving more than 200,000 access lines.

2. The existing system is based upon a comparison of a carrier's costs with national average costs. However, national average costs are higher than urban costs because costs per line generally decrease as line density increases. The Telecom Act requires that rates in rural areas be "reasonably comparable" to rates in urban areas and also that the spectrum of services available in rural areas be reasonably comparable to urban areas.

3. The fundamental policy goal of the Telecom Act is to promote competition in the local exchange market. Since increasing competition generally drives prices closer to costs, and since many local rate designs today average rates between high-cost and low-cost areas, increased competition in the local exchange market is widely expected to reduce rates in low-cost urban areas. This in turn may drive up local exchange rates in high-cost rural areas, jeopardizing universal service in those areas.

Low cost states, on the other hand, have expressed a desire to set universal service support at the minimum level consistent with the objectives of the Telecom Act, and have asserted that even the support levels necessary to implement the FCC's order of May 8, 1997 would be excessive.[9]

Both low cost and high cost states recognize all states are acting to represent the legitimate concerns of their citizens. Both groups of states desire to work together to achieve the Telecom Act's purposes.

C. The FCC Order

In its May 8 order, the FCC described a plan for support of high cost areas with the following characteristics.

1. High cost support would be funded by imposing a charge only on interstate revenues of interstate carriers.[10] This makes available a national revenue stream of approximately $82 billion in 1999 from which to draw support for high cost areas.[11]

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9. These low-cost states have also taken the position that federal support for high cost areas should be drawn from a surcharge on the interstate revenues of interstate carriers, but not from the intrastate revenues of those carriers. The FCC's order of May 8 is consistent with this position.

10. *Universal Service Order* at ¶ 831.

11. Previously, the states had disagreed about whether the FCC could or should also impose a surcharge on the estimated $133 billion available in 1999 in the intrastate retail revenue stream.

2. The FCC would distribute support to any eligible carrier providing service to a customer.[12]

3. The FCC would distribute high cost support based upon the results of a forward-looking cost model.[13] The calculated need for support would be the difference between a carrier's forward-looking cost and a national "benchmark" amount.

4. The FCC would provide 25% of the calculated support needed.[14]

5. The FCC would apply federal universal service support to a carrier's revenues in the interstate jurisdiction, in order to reduce the carrier's interstate access charges.[15]

In order to evaluate the impact of the FCC's May 8 order, and to develop an alternative approach, the Ad Hoc Group needed the results from a forward-looking cost model. However, the FCC has not yet adopted a particular model. The Ad Hoc Group first looked to the two leading models, the "Hatfield" (now called "HAI") model and the "BCPM" model. Each model predicts a total amount of support needed in each area of the country if a particular "benchmark" is set for company revenues. However, the results from Hatfield differ substantially from the results from BCPM, both in overall effect and in estimated costs in particular areas.

Since a final cost model has not yet been established by the FCC, the Ad Hoc Group has decided to use the "HAI" model.[16] In the absence of a decision by the FCC selecting a single model, the results should be considered illustrative rather than definitive.

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12. *Universal Service Order* at ¶¶127 et. seq.

13. *Id.* at ¶¶ 224-26.

14. *Id.* at ¶ 269.

15. *Matter of Access Charge Reform*, CC Docket Nos. 96-262, 94-1, 91-213 & 95-72, First Report and Order (rel. May 16, 1997), at ¶ 381. As to rural carriers not under price caps, the FCC also said that these carriers should "continue to apply any revenues received from the modified universal service support mechanism that replace amounts received under the current high cost support system to the accounts to which they are currently applying high cost support." *Id.* at ¶ 385.

16. The HAI model, version 5.0a, can be run in three different ways, based upon different geographic units: density zones; census block groups; and wire centers. The first of these, density zones, produces the lowest support estimates, and has been used in this analysis.

Using the approach in the May 8 order, the total national need for support is $4.96 billion per year. If federal funds were to provide 25% of the support needed, the burden of any additional support would fall to the states. The size of that burden varies dramatically from state to state. For example, North Dakota would need to raise and distribute $20.82 per line per month to reach full support.[17] To raise this much money, North Dakota would need to impose a surcharge of 30% on its carriers' intrastate revenues.[18] Montana and South Dakota also would need to impose rates of 30% or more.

By contrast, the District of Columbia would not need to raise any supplemental funds. Other states with large urban populations would need only modest surcharges. California, Massachusetts and New Jersey could each meet their own needs at surcharge rates below 2%.

Several high cost states have appealed the FCC's universal service order or sought reconsideration, asserting that the FCC approach of paying only 25% of needed support for high costs, and then assigning those funds to the interstate jurisdiction to reduce access rates, is inconsistent with the statutory mandate of providing federal support under Section 254 for rural areas. In particular, these states contend that any system that requires some states to pay such a surcharge of 20% or more, while allowing other states to impose only nominal surcharges or none at all would fail the statutory test of "reasonably comparable" rates. If the courts should agree with these arguments, the HAI Cost Model suggests that a federal support program of $4.9 billion could result.

Low cost states have other concerns. Some are concerned that the establishment of a large federal fund could draw significant funds from their states for the benefit of other states. Such transfers might be particularly difficult for low cost states with substantial low-income populations. Some low cost states are also concerned that establishment of a large federal fund would increase the federal role in the regulation of local telecommunications.

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17. State support per line per month would also exceed $10.00 in Montana, Nebraska, South Dakota, and Wyoming.

18. This assumes intrastate revenues in North Dakota of $333 million per year in 1999. Part of this may be implicit in rates already.

III. Principles For the Federal High Cost Support Mechanism

A. Overall Objective

The alternative support plan presented in this paper was designed to produce a federal universal service support mechanism that generates as small a fund as possible, consistent with the statutory objective of reasonably comparable rates and services. The proposal provides federal support to those high cost states that are unable to generate internally the support necessary to maintain rates in high cost areas that are reasonably comparable to rates in urban areas. These states cannot meet the statutory objectives without receiving outside funds because they do not have within their boundaries enough customers (and accompanying revenue) in low cost areas from which to draw that support. The plan is thus designed to provide support to states with average costs above the national average.

B. Defining the Problem

Two distinct definitions exist of the problem that should be solved by federal high cost support. The definition of the problem influences the best design for a federal support system. However, upon further analysis we believe that the Congressional intent regarding the Federal USF program can be identified.

The first interpretation is to define the problem as the existing large differences in underlying costs between urban areas and some rural areas. It has long been acknowledged that in some areas of the country it is simply very expensive to provide customers with telephone service. To the extent carriers serving these high cost areas cannot average costs with low cost areas, their customers inevitably face high rates, thereby jeopardizing universal service.

This first problem might be thought of as the "Underlying Cost Problem." It suggests that federal support should be aimed at ameliorating the rate differences that arise from underlying cost differences between rural and urban areas. The root concern is that rates must be "comparable" everywhere in the country, whether or not competition in that area has flowered.

The alternative is to define the problem as the expected rate effects of local exchange competition. As competition develops, most observers agree it will be increasingly difficult for incumbent carriers to maintain averaged rates across their service areas, and there will be increased demand on state commissions to de-average rates, thereby eliminating what the FCC has called "implicit subsidies." If these implicit subsidies start to disappear, rates in high cost areas

could rise, perhaps to unacceptable levels, thereby jeopardizing universal service. Some parties feel that states and the FCC have a duty to establish support in these high cost areas, even before competition develops, so as to encourage that development.

This second problem might be thought of as the "Subsidy Replacement Problem." It suggests that the purpose of Section 254 is to replace implicit subsidies presently found in local (intrastate) rates. Federal support thus would eliminate the harshest effects of this new rate deaveraging process. The root concern is to ensure that rates remain "comparable" within existing "study areas," the areas over which any existing implicit subsidies today operate.

Although the two problems are separable, the proponents of the plan described in this paper acknowledge the importance of solving both the Underlying Cost Problem and the Subsidy Replacement Problem. However, the Underlying Cost Problem has served as the primary design basis of this proposal for five reasons:

First, the Underlying Cost Problem is the only problem where a Federal program is necessary. The Subsidy Replacement Problem does not require any "new money;" it only involves making explicit and competitively neutral those existing fiscal transfers that already occur between customer classes and geographic areas. In other words, states can solve the subsidy replacement program on their own. Conversely, the Underlying Cost Problem, being based upon inherent differences between states, may require a transfer of support dollars between states, something that only the federal government can achieve.

Second, in enacting Section 254 of the Act, Congress intended to solve the Underlying Cost Problem. The FCC's existing high cost support program operates in this way; it calculates support based upon a carrier's average cost, as compared with a national average. Thus, Congress intended by Section 254 that the FCC's existing program be made incrementally more effective. Conversely, it is unlikely that Congress intended Section 254 to provide federal funding to replace existing implicit state subsidies.

Third, the Subsidy Replacement Problem, under its own terms, requires support only when competition is strong and implicit rate subsidies have become (or are about to become) explicit. In fact, while competition has gained a foothold in many states, few or no state commissions have permitted widespread deaveraging of local exchange rates. Therefore, the Subsidy Replacement Problem suggests that significant federal high cost support might be needed in the future, but the need at present is more modest.

Fourth, solving the Subsidy Replacement Problem is beyond the practical upper limit of a federal program. Solving the Subsidy Replacement Problem requires calculating support on a wire center by wire center (or smaller) basis. The result of such calculations, however, inevitably is a large need for support. By focusing only on the Underlying Cost Problem, a federal program can solve that portion of the problem which can only be solved by federal programs, without becoming impractically large.

Finally, the fifth and most important reason for emphasizing the Underlying Cost Problem is that states have only limited fiscal capacity. If maintaining universal service is to be a joint state-federal responsibility, the state's share of that responsibility must have some relationship to the state's resources. In general, states will be able to solve internally much or all of the Subsidy Replacement Problem without federal assistance. This is because the Subsidy Replacement Problem concerns de-averaging of rates within study areas, which by definition are entirely within states. Thus state efforts to solve the Subsidy Replacement Problem will have to address only the differences between the state's high cost and its low cost areas.

By contrast, solving the Underlying Cost Problem may be well beyond the economic reach of at least several of the states. If a state has a high average cost, any state effort to bring rates down will be self-defeating. To generate adequate funding, the state would need to impose a large surcharge on intrastate services. That same surcharge, however, would prevent total rates (including the surcharge) in that state from being reasonably comparable.

C. Principles

The following principles guided development of the proposal. The submitting states believe these principles, when taken in their entirety, provide a sound basis for meeting the requirements of the Telecom Act and addressing the legitimate concerns of consumers in all areas of the country.

1. Intrastate Purpose

The principal purpose of high cost support is to establish conditions that permit states to maintain reasonably comparable intrastate rates. This is consistent with the history of high cost support and with the intent of the Telecom Act.

In the interstate jurisdiction, the FCC has jurisdiction to set access charges. If the FCC is concerned that access charges include implicit subsidies, it may want to establish additional

surcharges and distributions to convert existing implicit subsidies in that jurisdiction to explicit subsidies.

2. Sufficiency

Consumers in rural, insular and high cost areas should have access to a similar spectrum of telecommunications services as consumers in urban areas. These services in rural areas should be available at rates that are reasonably comparable to rates charged for similar services in urban areas. The Telecom Act requires that rates be "reasonably comparable," not only between urban and rural areas within a single state, but also between urban and rural areas in different states. This requires federal support for at least some high cost areas. Support mechanisms must be specific, predictable, and sufficient to allow rates to be affordable.

3. Minimal Size

The federal high cost support program should be as small as possible, consistent with other principles, and its size should be as close to the size of the current federal loop and switch support programs as reasonably practicable.

4. Assessment on Interstate Revenues

Collections for the federal high cost support program should be derived from a charge on the interstate revenues of interstate carriers. The intrastate revenues of interstate carriers should not be used in any way in determining collections.

5. Compatible With Competition

a. Competitive Neutrality

Collection and distribution of high cost support should be competitively neutral. Support should not be available preferentially to competitive or incumbent carriers, or to large or small carriers.

b. Supports Development of Competition

The method of distributing high cost support should support the development of competition. The new system should permit new competitors with costs at or below the incumbent's cost to

provide service at competitive prices. The system should also offer the opportunity for new competitors to make a profit.

6. Incentive for Investment

Federal support for high cost areas should, when considered in the context of the entire regulatory system of telecommunications, contain appropriate incentives for upgrading and modernizing the network, particularly in areas that currently receive poor or marginal service.

7. Compatible With Separations

Federal high cost support should be one element in a coherent system of telecommunications regulation. One important element in that system includes the jurisdictional separation of costs and revenues.

A portion of loop and other costs are presently assigned by Part 36 of the Code of Federal Regulations[19] to the interstate jurisdiction and are recovered in that jurisdiction. Therefore, federal support for intrastate rates in high cost states can be reduced by the costs that are already recovered in the federal jurisdiction.[20] This ensures adequate federal support but prevents double recovery.

8. Compatible With State Policies

a. State Distributions of Federal Support

Federal support should be distributed to state commissions. States should then further distribute those funds to Eligible Telecommunications Carriers in a manner that supports universal service in state-identified high cost areas. Distributions should be based on state-performed cost studies meeting minimum criteria established by the FCC and should follow a plan submitted by

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19. 47 C.F.R. Part 36.

20. This can be accomplished by multiplying total support for each state by the composite intrastate separations factor for that state. For purposes of modeling below, the composite intrastate separations factor for each state is assumed to be 75% . This approximation is used here for illustrative purposes to determine the approximate size of the federal fund required. The final plan should use each state's individual composite separations factor. That change would not significantly alter the amount of money allocated to each state nor would it significantly alter the total size of the fund.

the state commission and approved by the FCC. States should be permitted to tailor distributions depending on the extent that local exchange competition has actually developed in the state and in conformity with other state policies.[21]

b. State Rate Designs

One reason to distribute federal support for high cost areas through state commissions is to ensure that distributions are consistent with the decisions of state commissions in setting rates for intrastate services. This also will encourage cooperation between the FCC and state commissions in implementing the Telecom Act.

Under the Telecom Act, states remain responsible for intrastate rates, including the rates for unbundled network elements (UNEs). States can decide whether and how to geographically deaverage retail and wholesale rates. States are also responsible, within limits, for designating the service areas of eligible telecommunications carriers. At least for non-rural carriers, states are free to design large or small service areas.

States will need to establish a coherent system of policies. They will have to decide whether to deaverage wholesale rates, whether to deaverage retail rates, and whether service areas served by non-rural eligible telecommunications carriers should be large or small. If a state does not successfully coordinate its universal service policy and its wholesale pricing policy, for example, the result could be the waste of high cost support.[22] Similarly, failure to coordinate universal service policy and retail pricing policy could also produce excess support for services purchased

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21. If a state does not develop or use its own mechanism, the FCC would have authority to distribute the funds to carriers, using one of the methods available to state commissions.

22. For example, assume that the state has established universal service support at the wire center level, but most of the state is served by a single large company and the state has decided to maintain a statewide wholesale price for unbundled network elements (UNEs) from that company. Further assume that in a particular high-cost wire center, cost is $80 per month, high cost support is $50 per month, and that a carrier can buy UNEs at the statewide average price of $20 per month.

There would be no need to provide support of $50 a month to a carrier buying UNEs at $20 per month. If $30 in support were indeed provided, an economically rational carrier could provide free service or even pay customers up to $10 per month to accept service. Moreover, the implicit support from one part of the state to another would continue in the form of the $20 per month average price for UNE's, thus frustrating Congress's intent that subsidies be made explicit.

for resale.[23] Finally, states may also want to establish service areas for eligible carriers that are congruent with their pricing zones.[24]

Federal support to high cost areas should be sufficiently flexible that it can accommodate legitimate variations in state policy, particularly concerning deaveraging of wholesale and retail rates and in the establishment of service areas. As state commissions deliberate on these decisions, they should know that, whatever the result, federal support for high cost areas will be appropriate in amount and distributed in a coordinated fashion.

Distributing funds through state commissions should encourage cooperation with the FCC. In recognizing that state decisions on rates and service areas are critical variables, the FCC would be offering state commissions a more meaningful basis for a partnership in implementing the Telecom Act.

9. Success Defined by the Market

The Telecom Act provides tools to initiate competition in local exchange services. Carriers who succeed in competitive markets are entitled to earnings determined by their market. However, high cost support should not distort market forces by creating opportunities for

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23. For example, assume once again that the state has established universal service support at the wire center level, but has decided to maintain the retail price of dial tone service at a statewide level. Further assume that in a particular high-cost wire center, cost is $80 per month, high cost support is $50 per month, and that a carrier can buy dial tone at a statewide average price of $20 per month. Finally, suppose that Carrier A either owns some of its facilities or purchases some UNEs and therefore is not a "pure reseller." Under applicable federal rules, Carrier A, and not the underlying carrier, is entitled to universal service support. *Universal Service Order* at ¶¶ 152,161.

There is no need to provide support of $50 a month to a carrier buying dial tone for resale at $20 per month. The problems are the same as those described in the preceding footnote.

24. For example, assume that most of a state is served by a single RBOC and the state has decided to leave the wholesale price of UNEs averaged statewide. Further suppose that the state has designated service areas for "Eligible Telecommunications Carriers" on a wire-center-by-wire-center basis.

Competitive LECs would have an incentive to serve high-cost wire centers through the purchase of UNEs and to serve low-cost wire centers through construction of new facilities. In areas where competitors have constructed their own facilities, the incumbent might not be able to compete effectively on price. Furthermore, competition might develop unevenly throughout the state.

arbitrage. Carriers should not be able to gain advantage by exploiting the irregularities of state and federal regulatory policy.[25]

10. Cost-based Support

a. Costs versus Rates

While the Telecom Act sets a standard of reasonably comparable rates, the use of costs instead of rates is a more consistent measure of a need for federal support in high cost areas. Rates are influenced by numerous uncontrolled variables, such as differences in the allocation of costs between toll and local services and differences in the size of local calling areas.

b. Cost Differences Among States

States differ significantly in the average cost of providing those services that the FCC has determined are required by the Telecom Act. This is primarily due to differences in the mixture of high-cost and low-cost lines. States with a high proportion of high-cost lines tend to be high average cost states, and vice-versa.[26]

c. Assumed State Effort

The total amount of federal support for high cost areas can be reduced because the states also bear a portion of responsibility for providing support in their high cost areas and ensuring that rate levels are comparable to those in urban areas throughout the United States. The level of federal support should be sufficient to permit each state to achieve the objective of having rates equal to the overall national average. Thereafter, the states have the burden, with resources drawn from within the state, to ensure that rates in rural and high cost areas are reasonably comparable to urban rates.

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25. For example, as in footnote 22 above, where universal service support and UNE pricing are not on the same geographic scale, a carrier could receive high cost support of $50 per month while incurring costs of only $20 per month. Similar profits could be earned in reselling dial tone, as noted in footnote 23 above. Assuming the carrier can also collect a charge from the customer, the carrier in either case would be able to earn in excess of $30 per month. Under these facts the carrier could earn a profit by exploiting the regulatory system rather than by becoming the most efficient competitor.

26. This effect is examined in more detail in Appendix A.

d. Forward Looking Cost

Forward looking costs should provide an upper limit on the federal support for a high cost area. Where costs are declining, these kinds of cost models can predict the costs of an economically efficient new network. Reliance on such costs will, in the main, reduce the overall support need of the high cost system. However, to the extent that these models do not produce reliable results, these models should be used cautiously to ensure that any residual errors do not create undesirable side effects.

e. Embedded Costs

Embedded costs should provide a second and independent upper limit on federal support for a high cost area. Where costs are increasing, or where existing plant is largely depreciated, the embedded network (assuming adequate service) provides the economically efficient method of providing local exchange service. This can be true in areas where labor costs, raw materials cost, or real estate values have been increasing. Where embedded plant is providing adequate service and has a lower cost than new plant, the use of embedded costs is preferable. To use forward looking costs could have the effect of creating a price umbrella and would suggest that customers are willing to pay for the replacement of adequate existing facilities.

This will ameliorate the tendency of some forward-looking cost models to overstate costs in some areas because of the inaccuracy of modeling customer locations. It will also reduce the overall size of the federal fund.[27]

27. The logic supporting the lower of forward-looking or embedded costs is similar to that used to support the FCC's competitive bidding or auction proposal. That is, if bidding is adopted as a method for providing universal service, the winning bid in most areas would likely reflect the lower of the incumbent LEC's embedded costs or a new competitor's forward-looking costs of constructing a new network.

f. Defining "Reasonably Comparable" Costs

National average costs are reported to be about 50% above urban average costs.[28] This is an acceptable definition of costs that are "reasonably comparable" to urban costs. This means that if the federal and state support systems could ensure that no carrier must cover net costs above the national average, the system thereby could meet the statutory criterion of "reasonably comparable" rates.[29] To the extent that embedded costs are used in calculating federal fund distributions, because of the history of funding the high cost program, the reasonably comparable standard can be pushed as high as 105% of national cost.[30]

11. Single System

a. All Rural Areas

Existing FCC policy largely equates rural areas and rural companies. This is not an accurate equation because many high cost rural areas are served by large companies.

A high cost support system can be simpler and more accurate if it calculates support based upon the characteristics of the service territory, and not upon the characteristics of the telephone company that happens to serve that area. Therefore, a single federal support program should apply to both rural and non-rural companies, without regard to their size. Also, a single system should apply in both rural and non-rural areas.[31]

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28. This conclusion is based upon an analysis of version 3 of the Hatfield cost model. Nationwide summaries by density zone have not yet been produced under HAI 5.0a to allow this analysis to be updated.

29. While this makes it possible to achieve reasonably comparable rates, other conditions would also need to exist. For example, state commissions would have to ensure that federal and state high cost support is actually translated into lower consumer rates. For competitive LECs not subject to rate regulation, the same result would be achieved by market forces.

30. Currently, high cost loop support is available when those costs exceed 115% of the national average.

31. As indicated above, forward-looking models may not adequately model costs in rural areas. To the extent that this is an acknowledged problem for areas served by "rural companies," it must also be a problem for "non-rural companies" serving rural areas. In lieu of their current objective which is predicated upon a bifurcated scheme, the "Rural Task Force" should be charged with

(continued...)

b. Loop and Switch

In some states, the cost of switching and trunking is as large as the cost of loop plant. To ensure that all high cost areas are treated equally, a single federal support program should replace both the existing federal high cost and DEM weighting programs.[32]

12. Hold-harmless

Federal support for a state should not be less than the amount currently received by carriers in that state for any High Cost Support (NTS costs or "loop"costs) plus DEM weighting amounts.[33]

In addition, where a state already has high rates and makes a net contribution to federal support, that state's contribution should not increase under the new system.

IV. How Does the Proposal Work?

In accordance with the preceding principles, a five part calculation will produce a federal support amount for each state which, in conjunction with state programs, will meet the statutory criterion of reasonably comparable rates. The new plan would take effect, both for rural and non-rural companies, on January 1, 1999.

A. Step 1 - Forward-looking Support

In this step, the average cost in each state is calculated using a forward-looking cost model. HAI version 5.0a is used as the forward-looking model for estimating the results. Federal support

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(...continued)
examining the effect of forward-looking models in all rural areas, including those served by non-rural companies.

32. Other support mechanisms, such as "Long Term Support" are not considered here because they do not directly affect intrastate rates.

33. The detailed calculation of hold-harmless amounts is described below.

under Step 1 is set equal to 75%[34] of that amount which, if distributed to carriers, would allow the state's net cost to be reduced to the national average.[35]

For example, Alabama has an average cost of $27.69 per line per month. This is $8.06 above the national average of 19.67. Alabama's Step 1 support level therefore is $6.01 per line per month, which is 75% of $8.06.

By contrast, California has an average cost of $13.64 per line per month. This is below the national average of $19.67. Therefore, California does not receive any support from the Step 1 calculation.

This model calculates smaller support amounts when the calculation is performed at the wire center or census block level. The reason is that the calculation here aims only to reduce each state's average cost, not to provide support to each small geographic area within the state that might have high cost. States are free to provide the extra level of support to smaller areas, as authorized by the Telecom Act.[36] States with low average cost, however, will not get federal support, and would have to provide any support for high cost areas from state-generated funds.

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34. The 75% factor used here is an approximation of the composite state separations factor. It is used here for illustrative purposes to determine the approximate size of the federal fund required. It may be desirable in the final plan to use each state's individual composite separations factor in lieu of the fixed 75% amount. That change would not dramatically alter the amount of money allocated to each state nor would it dramatically alter the total size of the fund.

35. The traditional outputs of forward-looking cost models is an amount of "support needed," assuming a particular benchmark. The calculation here disregards this traditional output of the cost models. Rather, the only outputs used are average cost and number of lines.

36. 47 U.S.C. § 254(f).

B. Step 2 - Embedded Cost Support

The calculation in Step 2 uses the same method as in Step 1, with two exceptions. First, embedded costs are used instead of forward-looking costs.[37] Second, in order to reduce the overall size of the federal support fund, the national cost "threshold" figure has been increased by 5%. In other words, federal support under Step 2 is set equal to 75%[38] of that amount which, if distributed to carriers, would allow the state's net cost to be reduced to 105% of the national average.

Embedded cost has been included in the plan for two reasons. First, embedded cost is an appropriate limit on forward-looking because it has not yet been demonstrated that forward-looking models are accurate in all cases. Errors can arise from a variety of sources. For example, the models may not be using accurate customer location data. In that sense, embedded costs operate as a check on the validity of the results of forward-looking models. As the models improve over time, the use of embedded costs should be reexamined.

In addition, even if the proxy models were perfect, there are economic reasons to consider embedded costs. Even if the proxy models were perfectly accurate and embedded costs were reported with complete accuracy, in some areas of the country it may be that forward-looking costs are higher than embedded costs.

High forward-looking costs might be found, for example, in an area that has largely depreciated its existing loop plant of buried copper wire. Since labor costs and copper costs have not necessarily decreased since that plant was installed, and since the plant is largely depreciated, construction of replacement plant could have a significantly higher forward-looking cost. For this reason, even after forward-looking models achieve a high level of accuracy, it may still be appropriate to consider embedded cost figures in calculating federal support for high cost areas.

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37. Embedded cost is set equal to the sum of loop, switching and trunking costs. The sources of data for this calculation are described in Appendix B.

In addition, embedded cost could be adjusted further to reflect the cost of any state-supported facilities that function in the same manner as LEC-owned facilities. For example, the cost of a state supported video network for schools might be eligible to be included in embedded costs.

38. The 75% factor used here is an approximation of the composite state separations factor. It is used here for illustrative purposes to determine the approximate size of the federal fund required. It may be desirable in the final plan to use each state's individual composite separations factor in lieu of the fixed 75% amount. That change would not dramatically alter the amount of money allocated to each state nor would it dramatically alter the total size of the fund.